Peak Performance

How many calories do you need???

The coming of a New Year brings with it endless resolutions and firm commitments to take better care of ourselves. With this commitment comes the marketing blitz of diet plans that claim to be the final solution to holiday weight gain. All of these diet plans use the same basic premise for achieving their advertised weight loss goals, primarily total calorie consumption. Contrary to what some may believe weight loss is not mysticism or magic. It is a simple mathematical calculation. If you consume more calories than you burn you will gain weight. If you consume fewer calories than you burn you lose weight. It's that simple! But how many calories do you really need to consume to safely lose weight, maintain your weight, or, ***yes*** even gain some weight.

Let's go through a simple calculation to help you determine just how many calories you need to consume. This number is called your basal metabolic rate or ***BMR.*** Quite simply, your BMR is nothing more than the minimum number of calories your body needs to simply survive. A man who is 6'2" and 210# of solid active muscle tissue has a much different caloric requirement than a man 5'7" 160# who sits behind a desk all day. Your BMR can be calculated using the Harris-Benedict Equations. Grab a calculator and follow these simple steps to calculate your BMR.

For Men: BMR = 66 + (13.7 x weight in kilograms) + (5 x height in centimeters) - (6.8 x age in years).

For Women: BMR = 65 + (9.6 x weight in kilograms) + (1.8 x height in centimeters) - (4.7 x age in years).

Let's plug in some numbers to help you with the calculation. We'll use a 45y.o. 6ft. tall man with a body weight of 180#. There are 2.2#/kilogram. 180/2.2 = 81.8kg. There are 2.54 centimeters/inch. 6ft. = 72" = 182.8 (183cm). Now let's plug these numbers into the above equation and calculate the BMR. 66 + (13.7 x 81.8kg) + (5 x 183cm) - (6.8 x 45yrs.)

BMR = 66 + (1121) + (915) - (306) = 1796cal/day or, for ease of understanding, ***1800cal/day.*** This number represents the minimum number of calories that this gentleman would need to consume to maintain his current body weight of 180#.

Obviously, you don't stay in bed all day. Even if your daily exercise isn't any more than light activity, you begin burning calories the minute you get out of bed. The following multiplier will help you determine more accurately your total caloric needs: (page 2)

Sedentary - (little or no additional daily activity) = BMR x 1.2

Light Activity - (light exercise 1-3 days per week) = BMR x 1.375

Moderate Activity - (moderate exercise 3-5 days per week) = BMR x 1.55

Very Active - (hard exercise 6-7 days per week) = BMR x 1.725

Marathon/Triathlon Training = BMR x 1.9

Let's now assume in our example that this gentleman is moderately active exercising 3-5 days per week: BMR = 1800 x 1.55 = 2,790 calories per day necessary to maintain his body weight.

What can you do to make this process simple? The beauty of programs like Nutri Systems, Jenny Craig and Weight Watcher's is that they make the calorie counting easy either by having you purchase pre-packaged foods or by having you account for foods by assigning point values to the amount of food you eat. These are all great ways to jump start any weight loss program. Ultimately, however, you will need to be accountable for the foods you eat. Using the equations above will help you understand your unique caloric needs. Remember too, that there are plenty of resources available to help you through this process. Feel free to contact Josh Wilson or Jim Muth. Either of them will be glad to help you outline a weight control program based on your caloric needs and activity level.

Reading a nutrition label -

Part of being able to accurately count calories is understanding how to read a nutrition label. Most packaged foods have a Nutrition Facts Label. They may at first look confusing but they will help you make smart food choices quickly and easily. Try these tips:

- Make your calories count. Remember fat has 9cal/gm whether it is saturated fat, polyunsaturated fat or monosaturated fat. Carbohydrates and protein have 4cal/gram. Moderate the fat in your diet based on your caloric needs.

- Look at the calories on the label and compare them with the nutrients you are getting to decide whether the food is a good choice.

- Check the serving size and see how many servings you are actually consuming and how many servings are in the amount of food you are going to eat.

- If one serving of a single food is over 400 calories it may not be the wisest use of your total caloric intake for the day.

- Remember doubling the serving size doubles the calories. Sometimes the serving size is quite small so be careful when reading the nutrition label. A small can of something may be densely packed with calories. These calories are usually fat calories.

Alcohol and Cardiovascular Health -

More and more evidence continues to indicate the health benefits of light to moderate alcohol consumption. A recent long term study published in April 2007, in the Journal of the American College of Cardiology, outlined the relationship between alcohol consumption and the risk for coronary heart disease (CHD). Light to moderate drinking on a daily basis significantly reduces the risk for CHD. Yet, excessive alcohol consumption and binge drinking are toxic to both the heart and overall health and is the third leading cause of premature death among Americans. So the question becomes how much is beneficial and how much is unhealthy?

Light to moderate alcohol consumption increases HDL (good) cholesterol and increases insulin sensitivity. Light to moderate drinking is defined as 1-2 drinks per day (15-30 gm of alcohol). A drink is considered to be 12 oz beer, 5 oz wine, 1.5 oz 80-proof spirits, or 1 oz 100-proof spirits, all of which contain approximately 13 gm to 15 gm of ethanol. The study found that in men who were already following guidelines for a healthy lifestyle (abstinence from smoking, BMI <25, eating a healthy diet and regular exercise) had a 50% decreased risk for developing CHD when consuming 1-2 drinks per day. However, those who consumed more than this showed a significant increase in hypertension, left ventricular hypertrophy and reduced ejection fraction. Light to moderate drinking is also associated with a significant reduction in the development of diabetes. In fact, the 2007 American Diabetes Association guidelines promote light to moderate alcohol consumption due to its effect on improving insulin sensitivity. Those who drank 1-2 drinks per day were 30% less likely to develop diabetes that those who did not consume alcoholic beverages.

Studies continue to show that both men and women who drink daily enjoy significant health benefits compared with those who do not drink or those who drink less frequently. It appears too that it makes no difference which type of alcoholic beverage one chooses to consume. Wine, beer or distilled spirits confer the same beneficial effect.

We must keep in mind however, the slippery slope that some individuals cannot navigate. It is not recommended, under any circumstances, that those who are non-drinkers start consuming alcoholic beverages. As stated above, and what is consistently emphasized in all the studies, abuse of alcohol is the third leading cause of preventable death in the United States. The American Heart Association and American Diabetes Association both caution people not to start drinking if they do not already consume alcoholic beverages due to the impossibility of predicting which people alcohol consumption will become a serious problem.

The message from this study is that if you enjoy an occasional alcoholic beverage do so prudently and as part of a healthy lifestyle. But never under any circumstances should anyone abuse alcohol. The health consequences can be severe. Discuss alcohol consumption with your doctor to assure that it can be a safe part of your lifestyle.

MET Values

Name	Agency	MET Value
MILLER, Dave	NHP	22.0
LEVINE, Amy	DMV	21.3
BILLICH, Joni	PP	20.9
MOORE, Kevin	NHP	19.8
SCHULZ, Burel	DMV	19.0
WHEELER, Charles	PP	18.9
BRYANT, Kelly	NDI	18.6
DORFF, John	NHP	18.4
PROSSER, Wayne	NHP	18.4
DINGLASAN, Vincent	NHP	18.0
RAFTERY, William	NHP	17.8
ROLL, Ken	NHP	17.8
JACKSON, Susan	NHP	17.5
CLOSE, Marie	PP	17.2
CLAGETT, Chester	DMV	17.0
PECSON, Mel	NHP	16.9
TRIMMING, Scott	NDI	16.9
CABRALES, Steve	NHP	16.8
CARPENTER, Anne	NHP	16.8
COSS, Eric	NHP	16.8
DAVIS, Guy	NHP	16.8
HAFEN, Jerry	NDI	16.8
MITCHELL, James	DOC	16.8
WEBB, Colin	PP	16.8
LEON, Amber	PP	16.6
WALKER, James	DOC	16.6
ALDRIDGE, Steve	NHP	16.5
ATEN, Arthur	NHP	16.3
REST, Tom	Lakes	16.3

Employees making substantial health improvements:

Warren Bailey - DMV
John Dorff - NHP
James Figueroa - DOC
Mike Lobiondo - DOC
Josh Luna - DOC
Mike Mangiaracina - NHP
Matt Moonin - NHP
Arthur Neagle - DOC
Colter Rynerson - DOC
Randy Scott - PP
Ceiara Sizemore - DOC
Brian Zana - PP

We will continue to keep you informed on topics ranging from the Heart Lung Program, to diet, exercise and nutritional advice. We encourage you to drop the Risk Management Division a note at 201 S. Roop St, Ste 201, Carson City, NV 89701, or call Vicky fry, RN, 775.687.3194. We are always looking for guest contributors to relate personal accomplishments and success stories. You can also drop a note or e-mail to Vicky Fry, RN: vfry@risk.state.nv.us, Josh Wilson @ wilson_jr@willis.com or Jim Muth @ jmuth@kbomanmd.com. Either of them will be happy to answer questions and provide information on wellness and a heart healthy lifestyle.